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ORIGINAL ARTICLES.

Some Practical Hints on the Employment of Water in Genito-Urinary Practice.

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The recognition of the bacteriologist as a powerful auxiliary implied a change of former tactics almost coincident with his advent upon the field. Indeed the practical physician soon relied upon him as the principal combatant; having little faith in the earlier principles learned from older masters.

The brilliant achievements of this latter-day strategist compelled a sweeping change in the method of therapeutic warfare. Instead of awaiting the evacuation of the enemy after a protracted siege, dependent upon the uncertain progress of remedies by the circuitous, alimentary and vascular route, a precipitate and direct attack upon his very stronghold soon dislodged him. Nothing was easier. The bacteriological ally had rendered visible what the older pathologist had failed to reveal to the senses. The devils which merely had an hallucinatory existence and which could not be exorcised by the equally-fanciful agencies successively invoked were no longer a barren ideal, but a real, living entity, once exposed, soon annihilated. The human mind instinctively longing for material revelations was now satisfied that that which had but a dreamy existence was now a fact. The old physi-

cian mentally pictured these devils under the familiar and all-comprehensive term, *materies morbi*; and based his operations upon the anatomical and physiological knowledge at his command. The modern investigator saw them with the material eye, and calling them microbes, bacilli, etc., proceeded to invent materials and engines for their destruction, unfortunately often ignoring his physiology and anatomy, assiduously applying himself to the cause and not to the disease or the abnormal organ.

The modern general soon learned that his antiseptic forces to be efficient could not be subjected to the uncertainties of an invasion. The enemy must be brought to the frontier, promptly cut off from retreat and completely destroyed by a single blow. This was the surgeon's opportunity; with each succeeding year the scalpel brought almost every organ to the light of day, the presence of the enemy revealed and immediately dislodged. Where this could not be done, the older methods prevailed. The era of topical medication was now established. The genito-urinary system, long a favorite field for the application of local remedies, often of empirical origin, now came almost completely under the domination of this new principle; the repulsion of the noxious micro-organism almost the exclusive object of attention at the hands of the surgeon.

To compass his purpose, water properly prepared often became the vehicle for the exhibition of substances possessing bactericidal properties when soluble; again this fluid, deprived of the omnipresent destroyer or his product, suited the purpose.

The general practitioner was not slow to recognize this new force; the same therapy became almost universally applicable; the technique was the important thing; but little account of topography or function was taken.

This is particularly unfortunate in his relation to the genito-urinary system. To call attention to some of these fallacies now so prevalent and which daily experience reveals is the object of this paper. It is not the purpose of the writer to cover the entire ground, but to furnish a few hints for those not specially engaged in this work, so that they may avoid some of these dangerous reefs. Where, when and how to employ this fluid medium is of more importance than the particular agent it may be destined to convey.

If the number of remedies suggested and applied by the therapist or the multiplicity of devices ingeniously contrived by the surgeon is to be accepted as the measure of importance in the treatment of a disease or organ, then surely the male urethra, when the seat of a specific inflammation, can claim pre-eminence. The materia medica has been ransacked, every new drug in turn has been applied with the hope that this might prove an excellent ground for its introduction to favor; but can any experienced practitioner conscientiously claim a reduction in the average period of disability entailed by an acute gonorrhœa? Has he not been disappointed time and again by every new remedy or method clamoring for recognition at his hands? Has he achieved a series of signal successes by the topical application in solution of germicidal agents of known and acknowledged virtue when regularly and methodically applied to the urethral mucous membrane, the seat of an acute clap in its early history? Destroy the cause and the disease disappears. The cause is recognized, the acknowledged remedy applied and yet the parasite remains. Unfortunately in our operations we take no account of his host. A series of pathological changes, incident to the lodgement of the virus, requiring time for involution. This time element—one of Nature's allies—is unconsciously ignored, the special topography of the site attacked overlooked, the individual disposition disregarded.

I well remember my chagrin some ten years ago, enthused with the perusal of the experimental results with sublimate solu-

tions of even very inferior strength and their possible utility in an acute clap. Not only disappointed, but actually alarmed to see an apparently inoffensive discharge with the customary attending discomforts converted into an angry, bloody stream, the penis deprived of its æsthetic form, and instead of the classical outlines, familiar to the ancient worker in stone, it more nearly resembled an inverted mushroom. This all from a 1-20,000 solution. Personal experience has proven that the local treatment of an acute gonorrhœa is disappointing, to say the least. I do not mean anything else but an acute specific inflammation, and not a revival of an old urethritis. What are the results when the acuity of the symptoms have subsided? How shall we proceed? That the method is of more importance than the particular agent is not sufficiently obvious to the general practitioner. The production of complications by the injudicious employment of the various solutions is now readily understood and based upon accurate bacteriological research. None can deny that the practitioner is as often as not responsible for their appearance. The calibre of the anterior urethra is not an indefinite quantity. A quantity of fluid much in excess of a dram with the meatus firmly closed is very prone to force the cut-off muscle conveying material for a culture either to the deep urethra, bladder, seminal vesicles or epididymis. Indeed there is less likelihood of a transfer upon the shaft of a sound or bougie since it may be rubbed off upon the mucous membrane covering the constricted in its passage through the membranous portion, though this is by no means always true.

Experiments of Jamin and Leprevost have shown the average capacity of the anterior urethra when distended to be 5 C. C. If you will then limit the injection to one dram one source of infection is anticipated and in a fair proportion of cases avoided. Thus many of the sequelæ of a clap may and can arise without the intervention of the surgeon or the imprudent self-treatment of the patient is admitted. How this happens we cannot always state with precision. The

the constrictor urethra effectually bars the posterior urethra, bladder and its adnexa under usual conditions and circumstances is admitted. That infection by continuity may occur when these cases are permitted to run their course without invoking that almost invaluable aid in the management of acute surgical diseases, namely, rest, is also admitted. Nevertheless none can deny that injudicious interference is responsible for the larger proportion of these casualties. That these accidents are attributable rather to the injection of excessive quantities of liquid propelling the infecting pus beyond the natural barrier than to the irritating quantity of the remedy must, upon reflection, be admitted.

Without dwelling, then, upon the efficacy of this or that substance or preference in the selection of the material to be dissolved, the all-important point is how the solution should be employed. If you instruct your patient to charge the ordinary penis syringe to only half its capacity, there will be no necessity for guarding the urethra by pressure in the perineum against the introduction of the injection into the deeper portions. If you will instruct him to repeat the manœuvre a number of times at each sitting, keeping the liquid in contact for a number of minutes, you will achieve more than by employing a large quantity at once, and without danger. The anterior urethra and this portion of the tube only is continuously and efficiently bathed in the fluid. A preliminary micturition insures a removal of the residual pus, increasing the security against inoculation and promotes an immediate contact otherwise prevented by the coagulating influence of the various salts exhibited.

When the anterior urethra is acutely inflamed, why should you hope to accomplish more by proding it with active germicidal agents than we would in other mucous conduits? Would an aurist advocate a similar practice in an acutely-inflamed Eustachian tube, or a gynecologist undertake the uncertainties of a lavage were it possible of the Fallopian canals in a similar condition? It seems to me that the only temptation to

venture upon these methods has been the accessibility of the urethra.

It is manifestly unfair, not to say unwise, to compare a suppurating urethra with an abscess which yields immediately to drainage and antiseptic flushing. An acutely inflamed mucous membrane is not an adventitious abscess wall. Rest and a regulated diet, and properly-administered remedies to be eliminated through the great emunctories during the acute stage, will effect more and do much less harm than all the lauded antiseptic lotions, successively introduced to the notice of the profession. If they are of sufficient strength to be destructive to the virus they are certainly prone to be irritating, and unless they can be borne in greater strength they do not attain the object for which they are intended.

Passing from the urethra to the bladder, let us review the results of indiscriminate lavage in the treatment of the urinary reservoir when acutely inflamed. Here I have witnessed effects most damnable all because the practitioner was striving to proceed *secundum artem* with the latest antiseptics carefully prepared in Nature's great solvent regardless of his physiology; a votary at the shrine of the microscopic idol, despising the macroscopic organ appealing for help.

Whether the acute cystitis, accuse a blenorrhœa as the inciting agent, or whether it be dependent upon one of a number of other causes, a group of symptoms more or less pronounced in this or that respect is always present. The inflamed bladder expels the urine under painful tenesmus almost as promptly as it arrives from above. The engorged mucous membrane betrays the presence of a stagnating sanguinary redundancy by the emission of blood in greater or lesser quantities. Robbed of his rest, the poor sufferer continues night and day to void a purulent urine, soon acquiring an ammoniacal odor.

To wash a bladder thus acutely inflamed, under the impression that the destruction of the micro-organism and the detergent effect of the liquid are the objects to be attained, is little short of malpractice. To distend

the bladder at each stroke of the piston would only exaggerate the congestion and increase the pain. An inflamed viscus may tolerate the contact of an instrument, but it will not remain insensible to distension. Distension means an exaggeration of function and what is always a consequence, an increased vascularization and an intensification of the congestion. What sensible practitioner would persistently prod an acutely-inflamed or irritable stomach with a mass of material in solution immediately resenting the insult by rejecting the liquid as rapidly as introduced. Would he not suspect the constant vomiting and retching as one of Nature's conservative acts which sound judgment would admonish him to imitate.

Yet I have recently had quite a number of cases pass into my hands which have been subjected to this routine treatment. Indeed, one horribly-abused patient informed me that his attendant insisted upon pumping in all he could so that an effectual distension might completely efface all the folds, and thus more thoroughly cleanse the surface. Imagine his suffering. The more he washed the worse he grew. You may almost with impunity subject the acutely-inflamed viscus to contact in carefully exploring to elicit the cause of the disability, but distension means adding insult to injury, and it never fails to resent the presence of the advancing column of liquid by increasing tenesmus and pain, increased congestion, blood and protracted inflammation. Intolerant often of even a half ounce of urine, upon what rationale would one insist upon adding two, three and even eight ounces of the same antiseptic wash?

Then let the medical attendant abstain from this form of active local interference. Put your patient at rest, limit his diet, unload his bowels, administer anodynes and do not resort to lavage though an infinitesimal percentage solution be an annihilator of the microbic assassin.

Though lavage because it implies distension is to be absolutely rejected as worse than useless, there remains a method of local therapy in acute cystitis which is not

only to be permitted, but is positively indicated as one of the best means of abridging the course and severity of an attack. This is by virtue of the principle announced as an equivalent of contact and not distension. By the instillation of a limited number of drops, say from ten to forty of a fairly-concentrated solution, preferably silver nitrate, when carefully practiced, distributing the solution over the previously-emptied bladder and posterior urethra (for this latter is always involved in a cystitis, it being virtually a prolonged vesical neck) the effect is almost magical, all the symptoms declining often after the first instillation and completely subsiding after five or six.

Whilst quite a number of admirable instruments have been devised to accurately practice the method, none are better adapted for the purpose than the instillateur of Prof. Guyon. By means of this ingeniously contrived apparatus the fluid can be precisely located, even the inexperienced recognizing the end of the anterior and beginning of the posterior urethra, the shoulder upon the bulb of the instillateur being caught upon and arrested at the posterior membranous portion upon its tentative though slight withdrawal prior to injecting the fluid. The screw upon the piston controls the amount of the fluid to a drop.

I will briefly quote from a number of histories of cases recently under my care, illustrating the brilliant effects of treatment based upon the principle just indicated.

CASE I. Mr. F. W. contracted a gonorrhoea about six months ago, which after lingering in the uncertainties of the balance as this or that method of treatment was adopted, finally eventuated in an acute cystitis. The calls to micturate imperative and agonizing; a dozen times during the night and twice as often during the day. Blood and pus in abundance. His medical attendants among other things resorted to an antiseptic lavage. The more they pumped the worse he grew; of this he was painfully conscious. After two months of patient trial he sought me in sheer desperation. Marked relief followed the first instillation of twenty drops of a

two-per-cent. solution of silver nitrate. This was repeated daily, and after six instillations the urine was absolutely free of blood and pus, the patient not being confined to his bed during the entire period of treatment.

CASE II. Mr. X., a clergyman, after being subjected to an aggravated urethritis, was finally confined to his bed with a cystitis so painful as to make life a burden. Very much reduced in strength and flesh, with a woe-begone and haggard expression of countenance, he sought my advice after an ineffectual and patient trial for two months in the hands of others. After a preliminary diagnostic search to eliminate any possible source of error, instillation of a two and a three-per-cent. solution; complete cure after the fourth instillation.

CASE III. Mr. D., a large, powerful gentleman, meeting with the same fate, had been in the hands of several distinguished specialists in different parts of the country, but owing to the limited time at his command could not remain to effect a cure. The assistant of one eminent New Yorker expressed a fear of tubercular cystitis because the affection would not yield, thus intensifying the physical anguish of the patient by added anxieties lest he be doomed. A careful examination of the gentleman revealed an acute cystitis with a blenorrhœa as its origin. Four instillations; a complete triumph.

CASE IV. Mr. D., an old gentleman with a very large prostate, developed cystitis of the most pronounced and painful character, owing to an unfortunate instrumentation at the hands of the surgeon. Erronious diagnosis of a vesical neoplasm in consequence of this mal-adroit catheterization. Persistent lavage with aggravation of all the symptoms. Came under observation after being in bed a number of weeks; an object of sympathy. In this case a complete subsidence of the symptoms, but pus in slight quantity still present.

CASE V. Miss G., upon whom I had done a oophoro-salpingectomy infected owing to careless catheterization, developed a most violent and painful cystitis with retention

and a horribly-fetid ammoniacal urine during convalescence from the operation. Two instillations; cure.

CASE VI. Mr. R.; violent cystitis in the course of a gonorrhœa; frequent tenesmus with complete retention; his sufferings resembling those of a woman in painful labor. Large doses of morphine and frequent catheterizations failed of relief. Four or five instillations promptly ameliorated the symptoms, and the urine is voided spontaneously. Self-infection by a soluble iodoform bougie during acute stage.

These are only specimen cases recently observed. Many others might be added to show the efficacy of the method. If you cannot practice it, let lavage alone, but rely upon rest and opium, etc.

Lavage of the various antiseptic solutions, though absolutely contra-indicated in acute cystitis, is a most excellent means for the treatment of chronic cases, but to be of service must be properly done.

To employ a double current catheter is a delusion and a snare, the current passing in and out in the center of the reservoir, leaving the sediments on the banks of the lake. The fluid should be injected with some little force—small quantities at a time, say about two ounces—through a catheter with two lateral eyes, so as to create a whirl-like action in the stream. Of course all the fluids should be properly warmed. If the lavage be productive of any pain, it is either improperly done or absolutely contra-indicated. During the process the bladder should never be entirely empty, so that painful contractions of the viscus may be avoided. A large piston syringe, delicately adjusted so that the least contraction of the organ may be recognized by the hand of the operator before it is perceived by the patient, is to be preferred to an irrigator or a fountain syringe.

I will not dwell upon the various methods of urethral irrigation, anterior or deep, but rest content to point out some of the fallacies and dangers so prevalent in the water treatment of the anterior urethra and the urinary bladder.

A Resume of Gynecological Surgery.

Read before the section on gynecology, Kansas Medical Society, at Topeka, May 12, 1893.

By J. P. LEWIS, M.D., Topeka, Kansas.

The surgery of the female reproductive organs is an immense subject, and has risen to the highest repute well within a half century, and has recorded triumphs of the highest importance to the comfort and life of thousands.

Very many operations have been performed for the first time within the last few years, and others have been brought to a greater degree of perfection. It has been unquestionably the success of ovariectomy that has led to the rapid progress of abdominal surgery.

The English claim for Houston, of London, the pioneer place in ovariectomy, as he tapped or drained a cyst as early as 1701. But Dr. McDowell, of our own country, was undoubtedly the first ovariectomist of the world. The tribute paid him by another is just, which says: "The world owes nothing to Houston who has been forgotten and who never had the courage to put into practice again the little information which he had accidentally stumbled upon. The gratitude of the world at large must go to the credit of McDowell, the father of ovariectomy."

McDowell's first ovariectomy was in 1809, and the total number of his operations, so far as I am able to learn, was thirteen. The English again claim that his operations were incited by John Bell, of Edinburgh, whose pupil he was. Lizars operated repeatedly about 1825.

Ovariectomy was on all sides met with ridicule and contempt. In 1823 Boyer says: "The least reflection suffices to show the dangers and impossibilities of this operation which has never been performed and never will be." Shortly before it was taken up by Sir Spencer Wells in 1857-59, the feeling is best shown by the query of Sir W. Lawrence, whether it could be any longer pursued without danger to the character of the profession. It is undoubtedly to the ex-

periments of Wells on the union of serous surfaces and drainage, and subsequently on the command of bleeding and the treatment of the pedicle, that we owe the present position of the operation, though others have done much to make it not only a justifiable and safe operation when the disease is early recognized and a careful aseptic condition assured. Many most important operations in abdominal surgery have been introduced in late years, such as removal of cysts connected with the liver and peritoneum and abscesses of the abdomen, excision of a portion of the bowels, intestinal obstruction and many other grave operations have been performed, especially within our own country within the last ten years.

Hegar and Kaltenbach say that castration was practiced among the Greeks and Romans—that is, the removal of the ovaries and uterus. At the end of the last century Hunter proposed the extirpation of ovarian tumors in the beginning of their development. He said: "There is no reason why women should not bear spaying as well as other animals."

The first operation for the relief of the ovaries—the first extirpation—was performed by Hegar, July 27, 1872, for dysmenorrhœa and ovarian neuralgia. Both ovaries were removed; patient died. Battey did not perform his operation until the 17th of August of the same year. To Battey, however, is due the honor not only of conceiving the idea, but what was more difficult, of successfully carrying it into execution and impressing the profession with its value and importance in special cases.

You may easily inform yourselves upon the subject of ovariectomy by referring to the surgical dictionaries and text-books of forty or fifty years ago; and must acknowledge that the contrast with the abdominal surgery of our own time—with what we may call modern abdominal surgery—is very remarkable. Then an occasional operation for strangulated hernia was almost the only piece of abdominal work done. The radical cure of hernia had scarcely begun to attract attention. Ashley Cooper had tied the abdominal aorta, and a case of Cæsarean

section was talked of by the profession as remarkable. A gun-shot or other penetrating wound of the abdomen was thought to be beyond the help of surgical interference. With the occasional formation of an artificial anus, abdominal surgery may be said to have reached its boundaries; for at that time operations on the rectum or the removal of stones from the bladder were not classed as parts of abdominal surgery.

Sim's Practice of Surgery, published in 1856, after the result of thirty years of hospital experience, has but twenty-eight pages devoted to surgery of the abdomen, four of which are devoted to wounds, and in which he says "punctured wounds of the abdomen being almost certainly fatal." He devotes, also, one page to tapping, twelve to hernia, and only a few lines to iliac abscesses.

Now, gentlemen, if you will contrast thirty or forty years ago with the present existing literature in all our late text-books and journals you can not help being amazed at the contrast. Now, the text-book would not be complete without something like the diagnosis of abdominal tumors, abdominal operations and after-treatment, fallopian tubes, broad ligaments, ovaries, uterus—gravid and non-gravid—trachelorrhaphy, stomach and intestines, kidneys, liver and spleen, gall bladder, pancreas, omentum, mesenteric tumors, intra-peritoneal cysts, perforating ulcers, purulent collections, and peritonitis.

I would not be fair, in speaking of the progress of abdominal surgery, did I not mention the name of Morton, who within the present generation made one of the greatest discoveries the world has ever known. And another hero who deserves the adoration of all mankind is Sir Joseph Lister. He may have been helped or aided, and perhaps surpassed by others, but no name will shine with more brilliancy in the great future than that of the great and noble character just mentioned.

It is stated by Mikulicz that hysterectomy, or removal of the uterus, was first suggested by Soranus in the first century, and the operation was first done by Andreas a Cruce

in 1560. The results of this operation are not given. Whatever they may have been, little or no advancement was made until the early part of the present century. Since 1872 the development of abdominal or peritoneal surgery has been wide and rapid. It at first extended to uterine tumors and partial or complete extirpation of the uterus.

Another important subject I desire to mention which should place a lasting crown upon its originator is that of drainage, first practiced by Peaslee in 1855. This has been one of the great means and given an impetus to rapid advancement in all lines of surgery. I will admit that at the present time many of our best operators in abdominal work are not following it as persistently as in times gone by, but this is a personal matter with each operator and his patient—at one time just right, at another time just wrong.

The methods for the removal of uterine fibroids are legion. Electricity has been employed by the following methods: electropuncture, galvanization and faradization. The latter only is in use at the present time. The negative pole is applied to the rectal or vaginal mucous membrane in the neighborhood of the ovary. The positive pole is applied by means of a large electrode to the abdominal wall an inch or more above Poupart's ligament. The current is passed for five or ten minutes, the strength being progressively increased according to the sensitiveness of the patient, and the treatment is repeated if necessary. This method has been very popular in America. It has also its ardent advocates in Russia. It is very difficult, however, to arrive at any true idea of its value, as exactitude of diagnosis is impossible, and as most reports in regard to its results have been made by practioners whose authority is not established. But so able and successful an operator as Dr. Keith, who has never been surpassed in his experience and remarkable statistics, says, after a trial of Apostoli's method: "So strongly do I now feel on this subject that I would consider myself guilty of a criminal act were I to advise my patient to run the risk of her life before having given a fair

trial to the treatment, even though I were sure that the mortality would not be greater than that which hysterectomy has given me in my private cases, which is only four per cent."

Wells says: "This declaration, which must be regarded as phenomenal, coming as it does from a man who is known to have observed scrupulously, and think calmly, and reason logically, and decide deliberately, and act conscientiously, ought to be sufficient to check the folly of reckless, indiscriminating laparotomists and to make their imitators hesitate before risking human life. It is to be hoped that the future will establish the facts that in electricity we shall find a resource which, if it does not supercede the knife, will render the necessity of its use much less frequent."

I do not believe as Keith does, that electricity will take the place or should take the place of the removal of the uterine fibroids, as it is too dangerous an operation in the hands of the many. Apostoli and Keith may do good work in that line, but it will only be a per cent. of cures besides a true scientific surgical operation. I well remember a case before one of the greatest scientific bodies of the world. It was a favorable result following most disastrous places. The operator was complimented upon his safe escape, but was mildly chided that he had better not try it again. Of late years the technique has become so complete that this operation has been resorted to by mere novices in surgery.

Batley's operation, or oophorectomy, was first done in 1872 for an aggravated case of hemorrhage. This same operation was suggested by Blundell as long ago as 1823, but it was not carried out in practice until done by Batley, to whom is due the honor not only of conceiving the idea, but what was more difficult, of successfully carrying it into execution and impressing the profession with its value and importance in special cases.

Hegar's adaptation of the operation to uterine fibroids was just, and of limited application. I am impressed that Martin, of Chicago, has made a most valuable sug-

gestion, and carried it out in practice by tying the uterine arteries for the control of hemorrhage, especially in a limited number of cases. I look upon this as a valuable suggestion, and one that will come into general use and bring renown to its originator.

It is almost an indisputable point to say that the United States is the birthplace of nearly everything that is good and practical in gynecology. To J. Marion Sims, of New York, who founded the first woman's hospital in the United States in 1855, is due a great deal in giving an impetus to this branch of surgery. The good work done in this institution needs no reference here. The operation for the repair of lacerated cervix is indissolubly connected with his name.

To T. Gailard Thomas the medical world owes more than can be named here for his original work, and for the matter-of-fact way he has of putting it.

Ten years ago, hospitals devoted to the surgery of women were only to be found in the largest cities. Now hospitals are dotted all over this country, and I am pleased to say are doing as credible work as the world ever knew. It appears to me that there is too little attention being paid to obstetric work in the way of establishing hospitals in the larger cities of this *western* country. The advantages accruing to a patient from the immediate repair of any perineal laceration are to-day quite generally recognized; and when done, will save the patient a long invalidism; and this work can not be done with satisfaction in the homes as we find them in this country.

The ovaries may be removed by the vaginal or abdominal method. The former has now been almost entirely superceded by the latter, or abdominal incision. Years ago, Goodell, of Philadelphia, operated by the vaginal method. Also Agnew, in his work on surgery, gives a list of 171 cases of ovariectomy up to 1876, with 18.72 per cent. of deaths. Of these 144 were performed by abdominal section and 27 by the vaginal method, with about equal mortality.

Some interesting physiological points may here be mentioned: That the removal of the ovaries does not bring on the menopause;

that the sexual appetite is not diminished, and no womanly attributes are in any way removed. The outcry that it unsexes a woman is absurd. The ovaries removed were probably useless for procreation and when their presence is causing serious bodily illness they are better removed.

We have already seen that Battey's idea of bringing on premature menopause by the removal of the ovaries has not been found correct, although this in no way detracts from the great honor due to his courage.

Tait believes that the removal of the uterine appendages will arrest menstruation, and that therefore in certain cases of bleeding fibroids, we have a sure and safe means of controlling hemorrhage and causing atrophy of the tumor. Chronic ovaritis and menstrual epilepsy are also indications for this operation, although the results as to cure are less satisfactory in the latter.

Lawson Tait, as we have seen, removes the appendages in cases of chronic ovaritis, hydrosalpinx and pyosalpinx; also in cases of fibroids of appendages, not because diseased in themselves, but to check bleeding. How they do this is not yet known. It is not by cutting off the blood supply, as the ovarian artery is not removed, and even if it were the uterine artery is sufficient to carry on the circulation. Allow me here to put in parenthesis again, as I have already mentioned it, the operation of Martin, of Chicago, for tying the ovarian and uterine artery for the control of tumor. In contradistinction to the above opinion, I wish to quote a few sentences from Mr. Emmet. He says: "One cardinal rule is to be observed in the treatment of these fibrous growths; we must do nothing to destroy the vitality of the tumor while it is *in situ*, since we then burden the case with extra risk of blood-poisoning."

In performing hysterectomy, one of the questions paramount in the minds of all operators is, "What is the best method of treating the pedicle?" There are three recognized ways of doing this: the extra-peritoneal, the intra-peritoneal and the vaginal method. Each of these ways has its supporters. Dr. Martin, of Berlin, says

the disastrous consequences from hemorrhage and sepsis that attend the intra-abdominal treatment of the pedicle led to the method of fixing the stump in the abdominal wound. Thus far this extra method has given the best results. It is not free from danger, however, the best operators losing from 10 to 15 per cent. of their cases. Moreover, the objections to it, even in cases that recover, are many; the convalescence is prolonged and tedious; the sloughing of the stump makes a disagreeable, nasty wound, and after convalescence results in an unsightly scar. The constant dragging upon the abdominal wall is also an undesirable sequel; and, as Dr. Wyley has pointed out, the presence of the stump in the abdominal wound favors the production of hernia. The broad ligaments, too, are put upon a stretch to an unnatural degree, and the bladder is compressed and restrained from its proper function.

The intra-abdominal method is the ideal treatment; the only question is, can you make it safe from hemorrhage at the time of the operation, safe from subsequent hemorrhage, and safe from sepsis, due to suppuration of the stump. Dr. James R. Goff, of New York, reports four cases of what he styles intra-abdominal method of treating the pedicle. Dr. Dudley, of New York, gave it the title of intra-abdominal but extra-peritoneal. This method consists of trimming down the stump to as near the ligatures as is deemed safe, and the point of opening of the cervical canal is thoroughly cauterized with pure carbolic acid. He says the large extent of raw surface of bladder flap made it necessary to be disposed of in some way, and it occurred to me that it could be drawn over the tip of the stump like a hood, and if drawn tight enough, primary union might be secured, and the distal ends of the stump nourished through the flap. This was done, the flap reaching well down on the posterior surface below the ——— on the ligatures, where it was firmly stitched along the entire border with continuous catgut sutures. The stump was thereby shut off of the peritoneal cavity and was dropped back into the pelvis. In this.

case the ligatures came away from the external os as well as the discharge of pus, and after irrigation the patient made a rapid recovery. He closes his argument by saying this method has all the elements of safety that any of the operations in use have. Moreover, it leaves no ligatures in the pelvis to give trouble, and above all, it restores the organs to their proper relations.

A question of vital importance to us is, what would we do in a case of contracted pelvis or *osteo-malasia*, with the conjugate diameter $2\frac{1}{2}$ inches or under. We have three methods to follow—puerperal hysterectomy, symphyseotomy and embryotomy. In typical Cæsarean section, done before labor or during its first stage, we have the following conditions to deal with: Patient is a healthy woman in good condition, with a healthy peritoneum, a healthy uterus with aseptic contents, with a non-infected birth canal. Under such favorable conditions the abdominal surgeon would expect the best results from an operation not unduly prolonged and not accompanied by serious hemorrhage. The points at issue are: Should the operation be done before labor or early in the stage of labor; should the uterus be turned out or incised *in situ*; should the uterus be restricted by rubber tubing during the operation to control hemorrhage or should manual compression be employed.

I find that writers differ materially upon these points. The Germans wait until labor commences or early in the first stage. They turn the uterus out, and constrict it with solid rubber tubing. Dr. Robert Harris, of Philadelphia, advocates that the operation should be done at a period prior to the commencement of labor. The uterus should be kept *in situ* and manual compression employed. There are many good reasons for following the American method. The Porro operation or removal of the uterus is sometimes advisable, especially if connected with a myoma or fibroma. We not only do a Cæsarean section, but remove the offending tumor. The Porro operation is the one of election when the case is seen late in cases already septic. But an objection, Harris says, to the Porro operation,

is that it unconsciously robs the woman of her womb and ovaries, and takes away from her the power of bearing children. This, to me, would be an element of good. A woman who cannot bear children without an operation should not be allowed to do so.

The operation of symphyseotomy gives promise of a great boon to women of deformed pelves. The record of 54 cases with 53 women and 48 children commands our admiration. The operation as practiced is too new for us to know much about it, or at least for fixed opinions, but with such statistics as those given by Harris it is welcome.

Embryotomy has been an operation always hard to justify. The Catholics condemn it and hold an operator morally guilty of homicide. It has been justified on the ground that it is better than allowing two to die. It is no longer a question of killing one to save the other with either of the aforementioned operations. Statistics will bear me out that both can be most assuredly safe. Embryotomy will find a place before Cæsarean section and symphyseotomy when the child is dead or is a human monster, as a case of hydrocephalous, or the foetus is believed to be non-viable from long pressure or violent efforts at delivery by the forceps.

The conclusion is that Cæsarean section in typical cases is a safe operation. It should be performed preferably before labor and not later than the first stage of labor. The classical operation is to be preferred to puerperal hysterectomy in typical cases; it is equally, if not more safe, and is to be preferred because it preserves the fertility of the woman. Puerperal hysterectomy is to be preferred in certain typical cases. Cases seen late in which infection in the birth canal and atony of the uterus are to be feared. In cases complicated with large fibroid tumors of the uterus symphyseotomy will probably supercede Cæsarean section, done for the relative indications. Embryotomy is no longer justifiable on a living, viable child as an elective operation.

READ the advertisements.

The Doctor and His Responsibility.

Read before the Eastern Kansas Medical Society at Topeka,
April 13, 1893.

By A. B. McCANDLESS, M.D., Holton, Kas.

The doctor—from *docceo*, to teach.

1. The doctor is a teacher.
2. A learned man; a man skilled in a profession; a man of erudition.
3. A physician; one whose occupation is to cure disease.

Responsible—*responsus, respondeo*—the state of being accountable or answerable, as for a trust.

Accountability, the state of being liable to answer for one's conduct; liability to give account and to receive reward or punishment; answerable to a superior, as every man is accountable to God for his conduct.

If I can present one thought that will help us in the faithful discharge of our responsibility and help us to more acutely realize our accountability in the practice of our profession, I shall feel well repaid for the effort and the privilege of being with you to-night. As I meditate upon this thought it grows in importance.

The great Daniel Webster, when secretary of state under President Filmore, was invited to a dinner at the Astor House in New York City. He was weary and seemed as though he could not enter into the spirit of the occasion with his usual vivacity; indeed, he was thought to be unsocial. A gentleman approached him with this inquiry: "Mr. Webster, will you tell me what is the most important thought that ever occupied your mind?" He hesitated a moment and then whispered to a friend beside him, "Is there any one here who does not know me?" His friend said "No, all are your friends." Then he answered, "The most important thought that ever occupied my mind was and is my responsibility to God."

The late governor of Massachusetts, Thos. Talbot, some years ago consented to run for state councilor, and was elected. The committee was highly gratified, and suggested to him that the successful candidate was ex-

pected to provide a supper for his constituents. "All right," said Mr. Talbot, "I will authorize you to arrange for the supper and send the bill to me;" but added, "I have only one condition to propose, viz., there be no intoxicating liquors provided for the occasion." Why did he do that? It was a realization of his personal responsibility to his God.

Next to this thought is that of personal responsibility to our fellow-man. I believe a real sense of our responsibility as members of society is indispensable to a true life; furthermore, I believe that a real sense of responsibility as physicians is indispensable to a true life, and I state, at the risk of criticism, that a true physician in the full acceptance of that term is impossible without a sense of responsibility so deep and strong as to control the whole being. And the physician imbued with this feeling and sense of responsibility is ready to defy toil and difficulties, and will rise to honor and fame in his profession.

It is this intense feeling of personal responsibility that makes a "handful of good life worth a bushel of learning," as George Herbert said.

Without this thought intensified in our hearts, indecision and weakness of purpose are inevitable. Thorough, earnest, continued, faithful work, associated with efficiency and mastery of the occasion, are the legitimate results of this irrepressible sense of responsibility.

I presume the very first feeling the faithful, conscientious physician has when called to the chamber of affliction when his professional services are brought into requisition is that of responsibility; not "how much money can I get out of this case," but "how can I best relieve the suffering of my patient and in the briefest time." And all the thoughts passing through his mind with electrical speed are generated by a sense of responsibility. With this feeling I am prepared to say our profession is in many respects (if not altogether) the most important secular profession which can be adopted. Its intrinsic importance depends on the priceless value of the objects of our constant

care and study, viz., the guardianship of the health and lives of our fellow-beings, and defence of the human body and human mind against the attacks and results of disease. With this thought accompanied with a corresponding responsibility, I am prepared to say other pursuits (secular) become insignificant in their objects when placed in contrast. Now let us see if this is true. The farmer bestows all his thought, labor, care and study on the productions of the farm, crops, cattle, etc.; the merchant spends his time and energies on his goods and commissions; the engineer on his rails and wheels; the boatman on his ships and freights; the banker on his bills, bonds and deposits; the manufacturer on his spindles and their products. But after all what are these things—corn, cattle, bank stocks, etc.—in comparison with the inestimable value and importance of the health and lives of our fellow-men, who everywhere move, breathe, speak and act all around us? I ask again, what are any or all these objects when contrasted with the precious gift of God on earth—human life? And what is the relative responsibility? I believe if we have a proper appreciation of our responsibility it will be a source of pleasure to us to strive faithfully to meet it. I believe that nature has happily ordained it as one of the great laws on which she has founded our world's happiness that the exercise of love and kindness to others should be a genuine and never-failing source of pleasure to our own hearts. Then can we realize the truth strictly as well as poetically, "That seeking others good we find our own."

THE DOCTOR AND HIS RESPONSIBILITY WITH
REFERENCE TO THE MEDICAL AGENTS
CHOSEN IN THE PRACTICE.

First, I want to speak especially of the practice of prescribing intoxicants. I have no doubt but from the mere force of habit many physicians prescribe them indiscriminately, hardly halting long enough to make an intelligent inquiry as to the responsibility they assume.

Now, gentlemen, let us not forget for a moment that we are teachers as well as

prescriptionists. I am sure the "Davy Crockett" advice in this case would be very wholesome, viz., "Be sure you are right, etc." I know right well this is a controverted matter that arrayed on either side of the controversy are medical opinions of no mean calibre; men whose opinions are entitled to much credit. I do not care to enter into an elaborate argument on this subject; neither is it pertinent to the subject constituting the caption of this paper. Feeling my responsibility as I do, I believe it is better to exercise especial care in prescribing intoxicants (if at all) for the following reasons:

First, the doubtful propriety of so doing. It is claimed by able writers, who have made the subject a matter of thorough scientific research, that alcohol, which is the essential element in all intoxicants, is not a stimulant; and in this list I refer you to the honored and revered N. S. Davis, who stands at the top of the list, whose productions are doubtless in the library of every physician and whose advice is eagerly sought and as a general thing accepted with great satisfaction. Now, gentlemen, I propose this inquiry for our earnest consideration. If after careful, thorough, scientific and conscientious investigation, alcohol has been proven to be not a real stimulant and will not accomplish the purpose designed as such, and that able, scientific, learned, devoted physicians have practiced successfully for many years without its use, would it not be safe to pursue the same course and receive the approbation of our own consciences and consequently a satisfactory feeling of having met our responsibility in the matter?

Second, we have in our possession stimulants after passing through the fire of investigation, which will, when judiciously administered, come to the help of exhausted Nature and aid in restoring to a healthy condition.

Third, it will relieve us from the responsibility of taking any risk of creating a habit from which the patient could not be relieved—that terrible habit when once formed and continued will not cure, but destroy both soul and body. I believe I echo the senti-

ment of every physician when I say I do not want to take any such responsibility, and probably it is not in the mind of any physician in my hearing that any such responsibility attaches to them; perhaps not, but such a case is supposable.

Sitting in the office of a brother physician some years ago in conversation, a lady came into the office who had just recovered from an attack of typhoid fever, and addressing him as Dr. S. says: "Doctor, I hold you responsible for creating in me an uncontrollable desire for drink." He had prescribed intoxicants liberally during the convalescing period with the result named. Let me ask you, gentlemen, where was the responsibility?

I take it, gentlemen, when the medical man presents himself as a practitioner in the community he enters into a moral contract, "though not writ so in the bond" with those who are to become his patients. What is the contract? They on their part agree to entrust entirely to his professional care and keeping that which is to them greater than the riches of Croesus, viz., their health and lives. The physician on his part pledges to protect and preserve for them these inestimable gifts by all the best-directed means that medical science has devised. Though silent, this contract is not the less responsible on his part. On the part of the physician it is a grave and inviolable bond of duty and conscience. On the part of the patient, one of faith and confidence.

Let us see to it, gentlemen, that we stand prepared to fulfill as promptly and perfectly as possible our part of this important, rigorous, mutual contract, and thus discharge our responsibility in the case; and it is surely a laudable stimulant to us to feel that the exercise of our professional duties carried out in this spirit is a continued realization of active beneficence, and in this view a continued source of moral satisfaction and happiness to the generous heart. Our responsibility makes the objects and powers of our profession alike great and elevated. Our aim is to alleviate human

suffering and, if possible, extend human existence.

Our ambition is to gladden as well as prolong the course of human life by baffling and warding off disease as the greatest of moral evils, and restoring health and sometimes even reason itself as the greatest of moral blessings.

To give us encouragement in bearing our responsibilities in our noble profession, I quote a line from the author of the "Village":

"Glorious your aim to ease the laboring heart,
To war with and stop his flying dart,
To trace the source whence the fierce contest grew,
And life's short lease on easier terms renew
To calm the frenzy of the burning brain
And heal the tortures of imploring pain;
Or when more powerful ills all efforts brave
To ease the victim no device can save,
And smooth the stormy passage to the grave."

May we follow the objects of our noble profession in the noble spirit of love and kindness to our race, then will the pure light of benevolence be shed around the pathway of our toils and labors, and a consciousness of having done our duty will cheer us onward and keep our steps from being weary in well doing.

Treatment of Syphilis by Injection of Blood-Serum.

Prof. Tomassoli, of Modena, has recently published an article in a Vienna medical paper in which he maintains that he has obtained excellent results by treating cases of secondary syphilis with injections of the blood-serum of the lamb and calf. Thirteen patients were treated by him in this way, and were cured, as he stated, within a few weeks. From two to eight cubic centimeters were injected into the muscles with a Turisini's syringe on each occasion, the total number of injections varying in different cases from six to thirteen. The only obvious effects of injection were slight fever, pain and local induration.—*Medical Record*.

SOCIETY PROCEEDINGS.

The Topeka Academy of Medicine and Surgery.

The Topeka Academy of Medicine and Surgery met in A. O. U. W. Hall on the evening of June 12, 1893.

There were present Drs. Rodgers, Barnes, Wallace, McCrea, White, J. C. McClintock, P. M. Lewis, Minney, Colcord, Magee, C. S. McClintock, Sheldon, Storrs, Powell, R. E. McVey and W. E. McVey.

The board of censors reported favorably upon Dr. C. S. McClintock, and he was duly elected to membership.

Dr. R. S. Magee presented a paper upon the subject of "Physical Examinations Before Operating on the Eye."

DISCUSSION.

Dr. Rodgers.—"This seems to be a resume of the opinions of the best men of the country. Recent experience, especially the New York case, should teach us the importance of a physical examination. It is a satisfaction at least to have a complete history of a case whether anything happen or not. It is proper to examine in all these cases as completely as possible. In general surgery I think it best to make a urinary examination, especially for albumen and sugar. I don't see what importance the presence of phosphates could have."

Dr. Barnes.—"In the hospital we always examined for albumen and sugar, but did not pay particular attention to phosphates."

Dr. Colcord.—"The general practitioner has to fall back upon his knowledge of physical diagnosis. Before sending to the specialist, he should make a careful diagnosis."

Dr. McCrea.—"Have noticed that in cases where phosphates were found in excess there was likely to be some renal disease."

Dr. R. E. McVey.—"The result in an operation in these cases would depend more

upon the vital condition of the patient than upon the presence of sugar. If there is cell proliferation, healing will take place. When we find albumen in the urine there must have been some change in the blood vessels by which the albumen is allowed to escape. Whether there is a general alteration of the walls of the vessels or whether the change is confined to the kidneys alone is an important point."

Dr. Minney.—"In major operations an examination of the urine is an important thing. By this examination we are forearmed by being forewarned of the condition of the patient. If the condition can be bettered and it is not a case of emergency it is better to wait. The mortality in our work is too large; there are too many eyes lost. Where there is an excess of phosphates there is diminished healing power. Where the urine is loaded with phosphates I would not operate until the system can be toned up and waste prevented."

Dr. McClintock.—"There is undue prominence given to the presence of phosphates. Urinalysis should always be made, but the presence of earthy phosphates should not preclude an operation. Should we attribute the bad results to the presence of phosphates? Should not the oculist be as careful as the surgeon doing a craniotomy? Should he not shave the scalp or shampoo the head? I have never refused to operate in a case of albuminuria where an operation was demanded. The patient's chances are not so good and the anæsthetic should be given carefully. Where a local anæsthetic will answer, it should be preferred. With the stomach empty and the careful use of the A. C. E. mixture the surgeon can go on with a feeling of comparative safety."

Dr. Minney.—In reply to Dr. McVey, said there was greater danger of retinal hemorrhage in diabetes or albuminuria. In reply to Dr. McClintock, said: "Oculists do not always take pains enough. Retinal hemorrhage may supervene, however, and destroy vision and necessitate the removal of the eye."

Dr. Magee.—"Patients suffering from local troubles usually improve under consti-

tutional treatment when local treatment fails. The neglect to examine the patient may explain the mortality in eye surgery."

Dr. R. E. McVey reported a case: "A child with considerable elevation of temperature, night sweats, and numerous pustules. As soon as one crop of pustules disappear another comes. Pustules filled with yellow pus. Treatment: Boric acid solution, calomel locally, and the administration of tonics and alteratives."

Society adjourned.

MEETING OF JULY 10, 1893.

Topeka Academy of Medicine and Surgery met in A. O. U. W. parlors at 8 P. M.

There were present Drs. Sheldon, W. E. McVey, Minney, Lindsay, Miner, Pelton, McCrea, Mitchell, Magee and Stewart.

Dr. S. E. Sheldon favored the society with a brief talk on pathogenic germs: "It is an open question whether it is the germ *per se* or the product of the germ that is the cause of disease. A ptomaine is a fermentative product and not an excretory product of germs. Germs, as a rule, have no motive power, and are carried to the point of infection by some other force. They are not apt to be carried by the blood, as it is an anti-septic. They are probably carried by the lymphatics. The bacilli have their action upon the white blood corpuscles—a low grade of tissue in which it can develop."

Dr. Minney.—"The tubercle is an irritant, and the white blood corpuscles come there in large quantities, hedging it in, attempting to cover up the irritation."

Dr. W. E. McVey.—"Prof. Gibbs claims that it is not the tubercle bacillus that produces the trouble, but it is a chemical substance that is carried to the tissues by the germ. The germ is not found in the newly-formed deposit, nor in the center of the older ones."

Dr. Pelton.—"It is the alkaloid from decomposed tissues that destroys. Pus is composed of pus corpuscles and serum. Tait says that in a majority of cases of peritonitis the starting point is in the nervous supply to the peritoneum and no microbe was pres-

ent. Turpentine will produce pus corpuscles without a microbe when introduced under the skin. There is some primary condition that lowers the vitality of the cells by which they are no longer able to resist the action of the microbe, and pus is a result."

Dr. Lindsay.—"It is a question of nutrition of the nerve centers that has to do with the lowered vitality."

Dr. Minney questioned the possibility of turpentine producing pus.

Dr. Pelton replied that Dr. Senn, of Chicago, had verified the experiments of Friedlander that turpentine and croton oil would produce pus.

Dr. Stewart.—"I don't think these agents will produce pus. It may look like it, but is not. Pus in the general acceptance of the term is infective pus. Wherever there is a low vitality there is a tendency to formation of pus and infection by poisonous germs from without."

W. E. McVEY, M.D.,
Secretary.

The Kansas Medical Society.

[CONTINUED FROM JULY NUMBER.]

ABDOMINAL HYSTERECTOMY.

Dr. Ward presented a paper in which he said: "The technique is based upon the anatomy of the tumor to be removed. We cannot have any dogmas or schemes of our own that we cannot vary from. I think one of the great causes of death from these operations is loss of blood during the operation."

Dr. Crowell.—"With the supra-vaginal method we have a weakening of the abdominal wall by leaving the stump in the wall. This, I think, is a minor objection. We do have a great amount of suffering in all these cases. In a majority of cases a large tumor that requires operation involves securing the pedicle very low down in the cervix. I believe hemorrhage is of minor consideration—that there are very few patients lost from this source. In vaginal hysterectomy we put on the clamps, and in

twenty-four to thirty hours we take them off without any fear of hemorrhage. I favor total extirpation. The closing of the wound is of great importance. My method is to close the peritoneum with catgut and close the abdominal wound with silk."

Dr. Cordier.—"The technique is peculiar, and you must see it done to do it correctly. It is some peculiar nervous influence that influences the growth of tumors, and not the blood supply. Time, avoidance of sepsis and hemorrhage are the elements of success in abdominal surgery. Catgut I never use; I don't think it is right to use it."

Dr. Seabrook.—"I have used both catgut and silk; wherever catgut can be used in abdominal surgery I favor it to the exclusion of silk."

"Dysmenorrhœa and Relief," by Dr. D. K. Longshore.

She said: "If women shall ever cope with men they will have to do it through better health. A great per cent. of the practice of women all over the world is among children. Anæmia and plethora are both causes of dysmenorrhœa; congestion is a frequent cause and often occurs from taking cold. Dilatation should be practiced in cases of stenosis and should be carried to the extent of one to one and three-fourth inches. This is also useful in flexion, as it maintains the position to better advantage. Altitude is a great reliever of dysmenorrhœa; many ladies will get relief while in Colorado. The bowels should be kept well evacuated."

Dr. Day.—"I have not been able to cure all my cases of dysmenorrhœa by any means; while I have tried everything, I always give a general treatment. I think it depends upon the cause. I do not rely upon tampons very much."

Dr. R. E. McVey.—"Two cases came under my notice—one from rapid dilation, which resulted in peritonitis and death, and another from gradual dilation, which resulted in septicæmia and phlegmatia dolens, with accompanying degeneration in the ovary."

Dr. Cordier.—"I agree with Dr. McVey that dilation is dangerous; it is not a trifling operation at all. Patient should be

placed in bed and kept there for a week. If there be any history of an old inflammatory trouble the os should not be dilated at all. I believe in thorough dilatation, and once is then enough."

Dr. Schenck.—"I never give morphine for this disease. I favor wool packing in these cases."

Dr. Grey.—"The worst cases of dysmenorrhœa that I have seen have been those caused by chronic inflammations of the ovary; in that condition I do not see that we gain much by packing."

Dr. Gant.—"I think that constipation plays a very important part in the treatment of these cases of dysmenorrhœa."

Dr. Glasscock.—"There is a special variety of this trouble, where the only condition we can find is hypersensitiveness of the mucous membrane of the uterus. I have tried electricity three or four times with good results."

Dr. Crowell.—"I want to urge the necessity of a thorough diagnosis. I believe it is hazardous to dilate to the extent of an inch. Curette, wash out, introduce drainage and keep patient in bed for two to four weeks."

Dr. Daugherty.—"This is a typical disease of the American girl. What we want is preventatives in these cases."

Dr. Conry.—"I have practiced dilation for eight years and never had any success. I have begun to practice on the mothers and had them dress their children properly, and find I have more satisfaction than when I practiced on the girls."

"Mastitis," by Dr. M. R. Mitchell.

Dr. Mitchell.—"The trials of maternity do not end with bearing children. Mastitis may occur in any case and continue during lactation. It is most likely to occur in primipara, and in the first four or five months of lactation."

"Fissure of the nipple is liable to take place. If the fissure becomes deep, nursing must be discontinued for a time. If a circular fissure appears at the base of the nipple, a little collodion and absorbent cotton should be used."

"Whenever pus is formed it should be immediately evacuated by a free opening."

Where the pus is located deep in the organ the incision should be made only through the skin and subcutaneous tissues, the balance of the opening being made with the finger."

Dr. Longshore had a case with the sixth child four months old; introduced the knife four times, and it evacuated voluntarily three times.

Dr. Grey.—"I am a thorough believer in the theory that these abscesses are usually, I might say in all cases, caused by the admission of septic material around the nipple. I have been, for the last two years, looking for a case of abscess of the mammary gland in which there had not been present a condition such as to admit septic material around the nipple. As I have not been able to find one, it is a recognized fact that in almost all these cases there is the formation of pus in the gland and some excoriation about the nipple; and I think the doctor's theory of septic material about the nipple to be the correct cause of the trouble. And also, when pus is once formed, that free opening and thorough drainage is the only proper proceeding."

Dr. Glasscock.—"I have always made it a rule when I see a case of mastitis, if it has not gone on to suppuration, to at once apply a bandage and produce perfect compression of the gland."

Dr. Cordier.—"The surgery of the abdomen and pelvis demands special study to obtain good results from its performance. Hot-water flushing will save a great many of these cases. Every abdominal case is an individual one and should engage the closest attention of the surgeon. In doubtful cases operate."

Dr. Lamphear.—"In regard to hemorrhage there is one precaution which every surgeon should take, and one which, in at least one or two instances in my observation, has led to the closing of a bowel which should have been cleaned out, namely, notice the amount of ligature material on hand. Frequently the vessels requiring ligation are without number. Of the adhesions which may stare the surgeon in the face, Dr. Cordier has spoken

at sufficient length. Now, there is one point with regard to rupture of the gut which Dr. Cordier did not allude to. It has impressed itself upon me for the reason that I have had a few dozen cases. It occurs low in the pelvis, in the rectum, and in such cases as this it has been my habit to clean the pelvis as carefully as possible and pack with iodoform gauze. One of two things will occur: The gut will heal or a fistulous tract may be left, the patient recovering. The most important point in the prevention of shock is the absolute control of hemorrhage. A second point is, perhaps, the rapidity of the operation. I would advise that the incision be made through the rectus muscle instead of through the linea alba as a prevention of hernia, for the reason that it is much more vascular and will heal much more rapidly."

Dr. Crowell.—"I want to recommend the Trendelenburg position."

EVENING SESSION.

Report of a case of "Dysmenorrhœa," by Dr. McCrea.

Dr. Crowell.—"Why had she the exudate, and from what source? What was the pathological condition? The exudate, it would appear to me, might possibly have been a hæmatocele. I am somewhat skeptical with regard to an exude in the broad ligaments without salpingitis. I do not believe in cellulitis. That electricity may in some degree promote absorption is quite true; it certainly is another evidence of such fact. I should be inclined to believe that there was existing in the case a catarrhal condition. It is my custom to leave the thermometer with the patient to have the temperature taken every four hours during the day to see what the temperature would be. I have usually gotten the temperature in the evening."

Dr. Sheldon.—"The report lacks one element of importance, and that is the fact that the mixture treatment was adopted instead of the treatment she was giving credit for the removal of the cause. Is it not possible that the other remedies than the electricity

may have been instrumental in bringing about the cure as well as electricity."

Dr. Cordier.—"We frequently have an œdematous condition in connection with an ulcerated tooth, and we know how soon it is absorbed upon the removal of the offending cause."

Address by J. W. Felty, *in lieu* of paper.

PUERPURAL PERITONITIS SURGICALLY
CONSIDERED.

"I will cite a few cases. We all agree, I believe, that purpural peritonitis is the result of dirty obstetrics, the septic material entering the uterine cavity, producing an inflammatory trouble, and from there to the fallopian tubes, and then to the peritoneal cavity.

"A few months ago, while I was spending the winter in the eastern United States, I was called in counsel with my preceptor, who had a case which he regarded as puerpural fever. I saw the case—a large abdomen swollen as tight as a drum. Patient had a chill every day for five days with a temperature an hour after the chill of 104.5-6°. After the chill disappeared the temperature came on. With the *coal-tar* preparations for reducing the temperature it was reduced every four to six hours, afterwards to 99° or a little more. Upon examination I was absolutely certain that there was pus in the abdominal cavity. I was also certain that it was a diffused peritonitis. I was further certain that the woman had no possible chance for recovery without a section, and I so gave my opinion. Her heart was feeble and urine loaded with albumen. The case was a grave one, and I told the family that there was a possible chance of saving the life, and the only chance was to open the belly and wash it out with hot water if necessary—if we saw the tubes were diseased, remove them—wash out and drain. For two hours the family was wavering, but finally gave their consent. We opened the abdominal cavity and found there, I dare say, a half pint of very nasty, sanguinous, bordering on a creamy pus around the broad ligament on both sides. We saw there was no possible show

for saving the woman's life by washing her out, because we could not remove all the septic material. I performed Tait's operation by removing the ovaries and tubes, washed her out, put in drainage tube and closed the belly. She had no more chills. Her temperature after the operation never rose above 100°, and she made a beautiful recovery.

"I cite this case because the general practitioner to-day is loth to undertake an abdominal section for the reason that he has not done it before, and for the reason, generally, patients with puerpural peritonitis die. I am very certain this case would have died. There was no alternative. The septic material was kept right up.

"After my return home I was called in counsel with a case with a general peritonitis. I found her in a similar condition, having a chill every day for three days; temperature ranging from 104° to 106°. I saw her at 4 o'clock P. M., and upon examining the uterine cavity found it contained placental fragments. I at once determined the cause of the trouble, and at once advised an abdominal section as the only way to save the woman's life. They told me that they would not allow that until the father was consulted. The father lived twelve miles in the country, and he was immediately sent for. It was finally agreed we should do the section. While they were hesitating we went in and saw the woman sinking, and she died before we left the house.

"The question in my mind of great importance was, 'How was this case; in what way does this case differ from the one I had operated on, and could I have saved her by operating at 4 o'clock?' I made an autopsy, and do not think I am overstating the case when I say I found a quart of pus in the peritoneal cavity.

"I desire to make an appeal to the general practitioner. First, for clean obstetrics. In this day we should have no puerpural peritonitis. There is hardly any excuse for the general practitioner in this day having such a thing as puerpural peritonitis. But when we do have cases, and we will have them as long as we are not clean, our ex-

perience is a sad one if we let them go. I make this appeal: When you do know she is going to die, I beg of you to make an abdominal section because it is the only chance for her recovery."

Dr. Daugherty.—"I believe like Dr. Felty, that the only remedy is the abdominal section. But if you are satisfied there is no pus in the abdominal cavity in peritonitis, puerpural or otherwise, drain with salts, and if there be no pus in the abdominal cavity your patient will get well."

Dr. Cordier.—"A great many of these cases are beyond the control of the general practitioner or obstetrician. Now, it is due to this fact that even if pregnancy has occurred the tubes will become infected. In this condition the tubes will become closed, there is a collection of pus remaining in the tubes up to the time of confinement, and at labor there is a small amount of pus escapes into the peritoneum."

Dr. Sheldon.—"At what time should we operate on those cases requiring an operation? On what class of cases should we operate? Those of us who have practiced medicine for a number of years have seen a large majority of our cases recover without surgical interference."

Dr. Schenck.—"I am decidedly inclined to agree with Dr. Felty, that a large proportion of these cases may be trusted to nature and aseptic cleanliness. Of course in any case of specific infection before labor commences, sepsis will not prevent the inflammatory action consequent upon that infection. And in the ordinary cases, where we are called upon to see and treat, I think that with proper care we can almost wholly eliminate the disease from our books."

Dr. Daugherty.—"Is it always the case that puerpural peritonitis originates from dirty fingers or dirty obstetrics? Is it not possible that it might originate in some other way?"

Dr. Gray.—"Granting that these cases of infection usually occur directly from the uterus, and that it is the fault of the obstetrician, there is a period in these cases of puerpural septicæmia that if the uterus be thoroughly curetted and irrigated, it can

be arrested, I think, in the majority of cases, short of a general peritonitis. At least, in a number of cases that I have seen, where the cases started in a puerpural septicæmia with a chill and high temperature, a thorough curetting of the uterine cavity and irrigation with a strong solution of carbolic acid has often, in my experience, been sufficient to arrest the infection, and I think this of particular interest to the general practitioner, and recommends itself, and by this means have arrested the case before it reached the stage alluded to by Dr. Felty.

N. E. K. M. & P. Association.

This Society met in Wetmore, June 13, 1893, at 2:30 P. M.

President S. E. Sheldon in the chair.

Present: Drs. Brown, Moore, Troughton, Fitzgerald, Haigh, Sheldon, McVey, Magee, Paddock & Paddock and Wallace.

The first paper was presented by Dr. Troughton on "Cholera and Its Treatment."

"There is the same lack of the true knowledge of the treatment of cholera as there was fifty-eight years ago. Dr. Ross, in a collection of over 1,000 cases, found the per cent. of mortality varying from fifteen to eighty per cent. by different treatments."

DISCUSSION.

Dr. Haigh.—"If the prevention of cholera depends upon ozone or cleanliness, how can we explain the mortality from cholera that occurred among the wagon trains passing over the plains to California in 1814. It must be something more than a filth disease. It occurs in the palace as well as the hovel."

Dr. McCrea.—"The first and most important step in the treatment of cholera is prophylaxis. In addition to the usual precaution, it would be wise to consider the advisability of inoculation in case an epidemic should occur. In the active treatment, the objects desired are stimulation and asepsis; salol and mild chloride of mercury most generally advocated. The objection to salol is its irritant action on the kidneys. Enteroclysis of tannic acid is advocated by

all modern authorities. Stimulants must be administered either hypodermically or by venous or arterial transfusion."

Dr. Moore.—"We are in the dark as to the pathology, and the treatment is experimental."

Dr. Wallace.—"The interesting question is the prophylaxis. Bacilli cause the disease. It lives in an alkaline medium."

Dr. Haigh.—"The best means of prophylaxis is to control immigrations. The pilgrimage to Mecca is the starting point of all these epidemics."

Dr. Graham.—"Treatment should be upon the principle of antisepsis—acid drinks and chloride of sodium injections."

Dr. Sheldon.—"Etiology of cholera is a mooted question. Collapse occurs early in the disease and stimulants are required. Heat to spine and nerve centers is better than alcoholics. The ptomaine must be destroyed and tannic acid does this best. It forms a chemical compound with the ptomaine, rendering it innocuous. Intravenous and high rectal injections of sodium chloride are serviceable."

Dr. Troughton.—"I believe the first case of cholera we have to deal with has its creation in the person that dies of it—devitalized nerve tissue, lack of ozone. The social quagmire is a fruitful source of cholera germs. A few drops of hydrogen peroxide in boiled water is more effective than acidulated drink."

Drs. Germain and Stewart were elected to membership.

Dr. Sheldon, the retiring president, made a few remarks on books and special lines of study.

Election of officers resulted in the choice of Dr. R. S. Magee for president, Dr. Paddock, vice-president; Dr. W. E. McVey, secretary; Dr. Graham, assistant secretary; Dr. Riggs, treasurer.

Wetmore was selected as the next place of meeting.

Retiring president was given a vote of thanks.

Dr. Paddock addressed the society on the subject of "Atonic Dyspepsia vs. Gastritis."

PROGRAM FOR NEXT MEETING.

"Erysipelas," by B. S. Stewart, M.D., Netawaka.

Discussion by Dr. Scott, of Holton.

"Electricity with Iodine in Current Locally and Creosote Internally in Diseases of the Lungs," by Jos. Haigh, M.D., Grenada.

"Intestinal Diseases of Children," by P. R. Moore, M.D., Effingham.

Discussion by Dr. Brown.

"My Method of Performing Ovariectomy," by S. E. Sheldon, M.D., Topeka.

R. S. MAGEE, M.D.,
Secretary.

Dr. S. G. STEWART, of the JOURNAL force, had an attack of appendicitis in July. This is the second attack during the past six years. The McBurney point was well marked. It was expected that an operation would have to be done, but by the use of enough morphia to control the pain, from $\frac{1}{8}$ to $\frac{1}{4}$ of a grain twice in twenty-four hours, and one grain of calomel every hour for twelve hours and the sulphate of magnesia, a saturated solution, three or four tablespoonfuls every four hours, the inflammation subsided and natural drainage through the bowels was established. Within forty-eight hours the dangerous symptoms began to yield under the foregoing treatment. The nourishment consisted of beef juice, at first two tablespoonfuls every two or three hours, but the second day it nauseated him, when he was given fresh buttermilk, which was relished. Soon a tablespoonful of cream was added, which was tolerated and agreed with him, and we are glad to note his recovery. The appendix should now be removed.

SOME eminent authors have said that a man's life is controlled (1) by residence, (2) by ablutions, (3) by clothing, (4) by diet, (5) by exercise, (6) by amusements, and (7) by individual habits.

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TOPEKA, KANSAS, AUGUST, 1893.

The Doctor's Wife.

We often read about the doctor. What he is by nature; where he came from; what he is, prepared by art; what he should be; what he does, and sometimes what he fails to do. But it is seldom we read about the doctor's wife. The physician has a wife as a rule (or a husband), and success depends largely upon her. A womanly wife, a successful husband. The doctor's wife is equipped with her full share of common sense. She has her likes and dislikes, and an opinion about her acquaintances, neighbors and her husband's patrons, but she keeps her thoughts to herself by word and deed, or, at most, tells her husband when she thinks it is to his interest to know.

Second, she is of a cheerful disposition or cultivates the habit of looking on the bright side of life, knowing that the husband is constantly brought into contact with the darkest side of life, and has but little to

cheer him in his life-work but the satisfaction of duty well done.

She cultivates a kindly disposition and smooth, even temper, remembering that the husband has constantly poured into his ear the trials and tribulations, and frettings and lamentations of poor, sick, suffering humanity, and that home is his oasis in this desert world of happiness. She rejoices when he is glad, and when he is depressed from the serious sickness or death of his best patient and friend, she comforts him and is his only solace. When the slanderer and blackmailer and light-minded, easy-virtued tongue would blacken his character, again is she his shield and buckler, for what the wife asserts cannot be gainsaid or denied. She knows him for she lives with him.

She is interested in her husband's work for the good he is doing in the world as well as the profits received. This is shown by her every act and word. Is a call left, she inquires of the messenger, who is sick? How long the sickness has been on, and its nature, so that the doctor may know as much about the case as if he had seen the messenger himself.

She is not curious to know, but she can keep a secret and she can be confided in with perfect safety. She is a reliable consultant, and always on the safe side. She may not know, but her womanly instinct will strike the general average, and her advice will be worthy of confidence.

She is not jealous. She takes a broad view of humanity, and lives on a higher plane. She knows the weakness of her fellow mortals, the temptations to which they are subject, and endeavors to strengthen them by her example of right living, and thus gives no room for jealousy to spring up and be nourished, but smothers it early by the mantle of charity and a virtuous life.

She is faithful and forbearing—from the nature of her husband's calling, the duties of the home and the care of the children, largely depend upon her. She is equal to the occasion, and is found at her post at all times. The finance may be low and she is planning, scheming and economizing to make the most of the least.

The irregularity of the doctor's life constantly interferes with her rest and enjoyment. She is aroused at the midnight alarm, and if the doctor is called away, her rest is disturbed by thoughts of him on his journey in the darkness, by the cold blasts of wind or the torrents of rain falling on him, or the danger of losing the patient, all add to her unpleasant wakefulness.

She cannot plan to have her husband with her like other women. No set time for him. A pleasant drive is planned; the carriage is in waiting and all are safely in, but the doctor, and just as he is ready to step in he is hailed by a messenger. An accident has occurred, life is ebbing away, and the doctor must go. The ride is taken alone, and the thoughts of the wife cannot be but with the doctor husband in his fight with death.

A picnic or visit for a day is planned, but an accident or urgent case calls the doctor away, and the day is spent alone by the faithful wife without a murmur, but not without a sacrifice.

Thus it is all through life with the doctor's wife. This is why our sympathies are with her and our thoughts are of her and our praises are placed on record in her behalf. And while it is true that the consciousness of work well done and of a life well spent is a satisfaction and consolation to the doer, yet if this life is all there is, creation is a failure.

But there is a calm, holy satisfaction in our minds, born of faith and confidence, from what we are and see and know, that this life is but a stepping stone to a higher and better and more joyous existence.

Medics.

The ranks of the medical profession are recruited from the poor boys and girls. This is a wise provision of nature. In fact, "nature acts naturally all along the line." These girls and boys from their earliest life have been trained in an atmosphere of self-dependence and reliance. When they wanted something, they got it; it was not given to them. The exertion developed them and the gratification stimulated them

to greater activity, and laid a foundation broad and deep for any future calling. Their physical wants easily gratified, their mental natures were quickened, and a desire for a higher life and greater achievements was begotten. This desire soon begot an unrest, and to satisfy this craving of the intellect, a profession was selected. They had pointed out to them the difficulties in the way; the labor, time and money required to prepare for the work; the crowded condition of all fields in professional life; the difficulties on every hand; the probable small remuneration; but difficulties seemed to strengthen them in their purpose, and on they went. They had learned early in life that difficulties overcome were stepping-stones to a higher life, mentally as well as physically.

These are the women and men who run the world, and upon whom the world depends. It always has been so, is so to-day, and from the nature of things will continue to be.

We now venture on slippery ground, but it is a serious question in our mind, if our government is not overstepping her bounds when she says: "I will give you a classical education free." Something obtained for nothing, without effort, is against nature, and in all human experience, as a rule, has not resulted in the enlargement and development and permanent good of the recipient. Iron will not rust while in continuous use, but oxidation sets in immediately when it is at rest. So are we constituted. A man whom the state educates may be strong, but the man who equally educates himself is stronger, all things being equal.

To the medical student, then, who is cogitating and economizing with a view to cast his bark into the medical profession, these words we send to you as our greeting.

The Cut Direct.

"For years he was well known to me,"
So the physician sadly said,
"But now, called to his autopsy,
I am obliged to cut him dead."

—*Brooklyn Life.*

Dr. O. H. Saxton.

Dr. Saxton, of Topeka, died at his home, 326 Kansas avenue, July 21, 1893.

The doctor was born in Washington Court House, Ohio, forty-six years ago. He was the son of a poor blacksmith. He graduated in medicine in Cincinnati, and when he left Washington Court House six years ago he was doing a \$10,000 practice. He lost some \$50,000 in the boom in Topeka. He took the Keeley cure two years ago successfully, but continued the use of cocaine, taking one drachm of cocaine a day for the past two years. Several members of his family have died of softening of the brain, and with such a predisposition the result is not astonishing.

The doctor was a keen, shrewd, energetic, wide-awake physician. He attended strictly to his own business. With all his faults of inebriety, his wife and children clung lovingly to him, showing that the man was there. One of the best signs of a good man is to see his wife and children devoted to him in adversity; when he falls by the wayside in the battle of life from human weakness; when he becomes unmanned as it were; when the public forsake him because of his habit, and point to him with pitying scorn; when there is nothing attractive in the physical wreck to those who do not know of the trials and tribulations and disappointments and possibly human hellishness which has driven to despair.

After all this, when the wife and children and brother and sister arise in the mighty power of love and kindly tenderness, and watch over and care for the erring one, whose faults were human, and kiss the departing spirit as it is wafted from its earthly tenement house to the expectant glorious habitation of the great majority, the most thoughtless will pause and be constrained to admit that a God-like soul has passed away.

Antipyretics.

1. That cold water is the best antipyretic used to-day.

2. That it is easily obtainable, and is therefore adapted to all classes of cases, both rich and poor.

3. The mode of application is so simple that it adapts itself to the hospital and equally as well to private practice, and can be applied without any distinct training.

4. Cautiously given, it stimulates.

5. Carelessly used, and longer than required, it depresses and will produce sub-normal temperature.

6. That rectal temperature should be taken, and the bath at once discontinued when temperature falls to 101° F., as it will then continue to fall.

7. That a stimulant administered before the bath may be necessary, and should be given where there is a feeble heart.

8. That the temperature indicates when to commence and when also to discontinue the hydropathic treatment.

9. Unnecessary blanketing after the bath is injurious and will produce copious perspiration which, I believe, weakens the patient.

10. The temperature of the room should always be between 68 and 72° F.—Dr. Fischer in *Polyclinic*.

Exposing the Dead in Public.

We cannot see the propriety or object of exposing to view to the general public the corpse at a funeral. If the friends desire to take a last view of the deceased it would be much more becoming to do so in private. The object would be accomplished without ostentation or parade. It would not look like it was done for show. It is no satisfaction to good and true women and men to see and hear the grief and sorrow of others publicly expressed.

In olden times there were hired mourners. They went about the streets bellowing and making a terrible noise, having themselves

blackened and disfigured, and all for show. We are sure this is not the object or purpose of the friends at funerals at the present day, but a compliance with a custom which is a relic of ancient practice and superstition. As before remarked, if the immediate friends desire to take a last look at the dead when habilitated for the grave, let them do so privately, but cover the corpse from the gaze of the morbidly-curious public.

Aside from pandering to a senseless custom, in many cases this exposure is dangerous to the living. Take it in the infectious, contagious diseases and how often do we hear of mistakes being made. The coffin was opened and a number of school children were permitted to see their little dead friend.

It proved to be a case of diphtheria. The disease spreads and the result was a number more deaths. The practice is founded on an ancient custom and has so many objectionable features that we think an enlightened public should relegate it, with the practice of paid mourners, to the past.

THE death rate in pneumonia, Dr. Washburn thinks, is gradually on the increase since 1882; at least it has not decreased during that period. In some cases venesection may be employed with good results. The *veratrum viride* treatment, he thinks, can only do harm. He ascribes the embarrassment of the heart to the accumulation of pneumotoxine in the blood. Alcohol even in small doses is a sedative and narcotic, and hence contraindicated; strychnia is the remedy. The physicians of Topeka have been using strychnia in pneumonia for several years. There is no difference of opinion as to the action of strychnia upon the heart.

THE requirements for practicing medicine by a number of the State Boards of Health is that the applicant must have pursued the study of medicine for at least four years, including three regular courses of lectures in different years in some legally-incorporated medical college prior to the granting of the diploma. Such proof shall be made if required upon affidavit.

SURGERY.

Success in Surgery.

The report of seventy-five cases of capital operations in surgery in the KANSAS MEDICAL JOURNAL of December, 1892, has elicited a number of questions as to how I obtained the success as noted—seventy-four recoveries and only one death. The report as given was taken from the hospital record, kept by the hospital authorities, which is open to the inspection of all physicians.

One question asked is, is this a true index of all my operations. I will say no; that in private practice I do not get as good results as I do in hospital practice where I have perfect asepsis and perfection in the preparatory and after-treatment of the cases by trained nurses. On these two items probably more depends than upon any other part of surgery.

An important element in the recovery of these cases is that Christ's Hospital is located outside of the city, on high grounds, with plenty of open space around, insuring plenty of fresh air. The cases of abdominal and cerebral surgery are given separate rooms. These rooms are devoid of any carpeting and contain only necessary furniture. They are always kept clean and are thoroughly cleaned after each patient leaves the room. In fact, too much stress cannot be laid upon having the surroundings surgically clean. The nurses in this department are especially trained for this work. They are required to attend the lectures and demonstrations which are given by the faculty of the Kansas Medical College to the nurses each winter. The nurses are thus prepared to carry out asepsis in its minutest detail. Except in emergency cases, all patients are kept in the hospital at least two days for preparatory treatment, which includes thorough bathing and scrubbing with brush, soap and hot water, injections, douches and the administration of saline cathartics.

One question which is often asked me

is what antiseptics I use. There is no use for antiseptics where asepsis can be obtained. Perfect surgical cleanliness is the watch-word, and when antiseptics are used, they are used with the confession that the surgeon himself is not clean; that he cannot have cleanliness around him; that the patient is not clean or the site of the operation is not clean. If everything is aseptic, then there is no excuse for the use of antiseptics.

It is my opinion that the greatest danger of sepsis is from the operator himself, or from his assistance or the instruments used; that he will not be perfectly clean; that he will not have his hands perfectly clean.

He cannot clean his nails; they must be pared down to the cuticle. And if there is suspicion of sepsis about his hands they must go through the most rigid antiseptic treatment. More depends, however, upon the scrubbing brush, the hand brush, the soft-soap and hot water used, than upon the antiseptics; even then, after the most thorough cleansing, he should keep his hands folded together, allowing them to touch nothing else. If he is compelled to touch even a knob, the process must be repeated.

Should he use all the precautions at his command he cannot render the skin of the patient perfectly aseptic. The glands and the hair follicles will still contain germs, and it is from these glands and hair follicles that the stitch abscesses occur. Noting this, the surgeon in making his sutures through the skin should always enter from below, then pass upwards. This will require two needles to each suture. For sutures nothing is so non-irritating as silk-worm gut.

The patient being thus presented in as nearly aseptic condition as possible—the surroundings aseptic, the surgeon and his assistants as clean as they may be—the operation is undertaken and done as rapidly as is consistent with work done to perfection in all its details.

Rapidity is an important element in an operation, but not so important as in the days before anæsthesia. Then the rapid operator was the best operator. Now the rapid operator, who pays strict attention to all details, is the best operator. Perfect

hæmostasis must be maintained throughout the operation. Each vessel, as severed, must be caught in the hæmostats. Those requiring ligature are best secured by the A. M. Phelps artery forceps. This hæmostat has the advantage of not only securing the vessel with its mouse teeth, but also by its blunt extremity, of not holding the ligature, but passing it off itself onto the vessel.

If blood is effused in a wound and remains aseptic, it will be taken care of by nature. A great portion will be absorbed, but a certain per cent. of the clot remains to become organized and to bind together parts that should remain free, and thus interferes with perfect results. If perfect asepsis is not obtained, the effusion is liable to break down and to give rise to numerous troubles in the after-treatment of the case. For this reason exact hæmostasis should be secured and thereby in the majority of cases do away with the necessity for drainage. Drainage, however, must be provided for in those cases where pus is met with in the course of the operation, and where the wound becomes contaminated with pus. In such cases surrounding parts should be protected by a proper packing about of gauze sponges, and the pyogenic membrane, if possible, removed. Even in such cases, if perfection is obtained, drainage may and should be dispensed with; but where for any reason infected tissue must be left, drainage must be provided. A number of cases of this kind have I met with where the patient could not survive long enough to remove the infected tissue, but where a rapid operation must be performed, and the abdomen, if the operation be in the abdomen, left open, packed with a pocket of iodoform gauze, stuffed with other gauze and this removed at a later period. In such cases perfection is sacrificed, but the life of the patient is secured. If necessary to secure perfection a secondary operation can be done, as I have done in two cases reported.

Care should be taken to approximate the surfaces of the wound, the deep parts brought together with a continuous buried suture of cat-gut, or, if of fascia where strength is needed, with a silk-worm gut,

the ends cut close, and lastly the skin approximated. With such suturing, there will be no need for drainage, especially if the sutures are supplemented with well applied dressings; and very seldom will a wound need to be seen by the surgeon until the patient is ready to be discharged, except it be to remove the sutures.

If the surgeon does perfect work in all its details, it is almost impossible to kill a patient, or to have a death, even where he takes the cases without selection, such as come to a hospital, often as a last resort, and many times where the patient is in almost a moribund condition.

J. C. McCLINTOCK.

Anæsthetics.

Read before the Eastern Kansas Medical Society in Topeka,
July 13, 1893,

By D. F. RODGERS, M.D., Topeka, Kansas.

The consideration of anæsthetics before a society of medical men certainly is commonplace and it may seem out of place, but when we consider that the selection of an anæsthetic for a given operation varies in different countries in different parts of the same country, and among the best men of the profession, we must immediately concede that there must be something about them not understood, not properly interpreted or sadly diverted from their proper channel.

In giving an anæsthetic in an operation for the relief of recent injuries, we generally do not have the time or opportunity to make the proper investigation into the physical condition of the patient that would enable us to determine which anæsthetic would be preferable; but in cases where an operation has been in contemplation for several days or weeks we should take as great pains in preparing the patient for the anæsthetic as we do in guarding against sepsis and the other evils that are liable to defeat the ends of a successful operation. By so doing we should be enabled to select the anæsthetic which, in the light of the most recent re-

searches, would result in the least harm to our patient. To do this we should have at our command the theoretical, experimental and clinical evidences of the effects of the ordinary anæsthetics on the animal economy.

All constitutional anæsthetics produce the same ultimate effect, namely, insensibility and muscular relaxation; but each acts somewhat differently on normal and abnormal tissues and organs. For the purposes of this paper the two anæsthetics in most common use is sufficient, and they alone will be taken up.

The investigations and report of the Hyderabad commission in 1889 seemed for a time to meet with such general approval on the part of the profession that we were tempted to again adopt chloroform as the universal anæsthetic, notwithstanding the clinical evidence to the contrary. This commission, as we well know, seemed to disprove the long-accepted theory that chloroform always caused death by syncope. Their conclusions were deduced from experiments on 138 pariah dogs of India and verified by Lauder Brunton by similar experiments on 450 dogs in the same country. There were two quite important objections to these conclusions as pointed out by H. C. Wood and others, namely: First, that the action of chloroform on the human system is not to be estimated solely by any influence which it may have on the dogs of India, for it is possible that the climatic influence of that country may make the respiratory centers abnormally sensitive to chloroform. While 450 dogs of India had died of respiratory failure, an equal number in America had died of cardiac arrest. Records of clinical medicine show that death in the human being from chloroform usually takes place either by primary arrest of the heart or by a simultaneous arrest of the heart and respiration, while in etherization the respiration usually ceases distinctly before the heart's beat. The second objection is that experiments on dogs, while usual and of much value, cannot be accepted in preference to well-established, clinical facts. Another point brought out by the investigations of this commission was that, contrary to a

long-accepted theory, the slowing or stopping of the heart was not due to vagus inhibition. In this opinion all recent investigators concur. It would seem, then, that chloroform possesses its peculiar properties by virtue of its inherent nature, the physiological effects of which are at present not fully understood. If we were to rely on statistics alone, and choose our anæsthetic in accordance with the facts presented as to the primary causes of death from anæsthetics, we should unhesitatingly choose ether; but when we have almost uncontradictory evidence that ether is the cause of death in a few days after very many surgical operations, we are reminded that as yet we have no universal anæsthetic. Several prominent investigators, indeed, assert that ether probably causes as many, if not more, deaths than chloroform. This suggests to us, then, that we should know our patient in order that we may anticipate the pathological effects that may follow, and by treatment reduce these effects at least to a minimum. The examination of patients, prior to giving an anæsthetic as usually practiced, consists in the examination of the kidneys, heart and lungs. In the urine we commonly test for albumen casts and sugar, but that the absence of the normal amount of urea has much to do with the final result is an established fact which we will refer to later on. We have been unable to find that a large precipitation of phosphates forbodes evil results except in that condition known as phosphatic diabetes, which disease is characterized by a large precipitate of phosphates, fifteen to twenty grammes daily, with the ordinary symptoms of diabetes mellitus, but minus the glucose.

Porter, in a recent article, says "that in all cases in which there exists in the urine positive evidence of retrograde changes in the glandular organs and of a state of sub-oxidation, there is a reason to expect unpleasant symptoms and even death during or shortly after anæsthesia. The fatal results are indicated by the inability of the excretory organs to cope with a further continuance of the suboxidation and consequent mal-nutrition, and at the same time

sustain the augmented demand made upon their excretory activity. At this stage albumen and casts appear in the urine if they were not present before." In his work on renal diseases also he makes some observations which are well worthy of quotation. He says: "It has been found at several necropsies, in which death followed abdominal section that the incision in the abdominal wall and the intraperitoneal was in a state indicating a rapid reparative process and not one of a septic nature. At the same time the patient died with symptoms which are commonly classed as septicæmic. Investigation revealed the fact that these toxic symptoms were due to rapid-developing acute parenchymatous metamorphosis of the kidneys. The microscopic sections of the kidneys revealed finely granular metamorphosis, common to this form of lesion. All major operations, especially those like abdominal section, have a tendency to produce this form of change appearing on the second or third day. This is accounted for in three ways: First, we have the irritating effect of the anæsthetic, combined with the primary shock of the operation, both of which tend to disturb the nervous mechanism and in this way alter the metamorphic processes of the body and thus increase the amount and the irritability of the effete products to be eliminated. Ether has the property of destroying the red blood corpuscles, which causes the body oxidation to be less complete, so that the products to be eliminated are very irritating to the renal epithelium. The nutrition of the kidneys is very much diminished or totally arrested. The prolonged administration of ether surcharges the blood with carbon dioxide and destroys the red blood corpuscles, and so impairs the nutrition and elimination of the liver and renal glands that a uremic toxæmia is developed, the symptoms of which are often erroneously called septicæmia. Second, there is an increase in the amount of the effete material to be eliminated as a result of the increased nutritive activity necessary for the reparative process. Third, the often unavoidable use of opium for the relief of pain interferes with the hepatic functions

and in part closes the excretory apparatus of the respiratory and alimentary tract and forces the work upon the skin and kidneys."

These thoughts, then, suggest to us the necessity of a thorough bathing with rubbing of the skin several hours before a major operation, and of complete rest in the recumbent position also for several hours in order that the skin may be active and the nervous system in the best possible condition.

The danger from a lack of the normal amount of urea in the urine may be inferred from a report of twenty cases of chronic kidney lesions reported in the *American Journal of Medical Sciences*, January, 1890, by Bond, in which there were the usual symptoms of albuminuria, but no albumen nor casts found, and the specific gravity was either normal or but slightly below or above normal, ranging from 1008 to 1021. In most cases, however, the specific gravity was either 1015 or 1018. The decrease of urea in the urine means an excess of uric acid, which in turn means not only retrograde changes in the kidneys, but in the liver and all the tissues of the body, which is indicative of suboxidation, a condition which anæsthesia usually increases, especially if accompanied with the more than necessary amount of asphyxia. We should remember, then, that our patient is to be anæsthetized and not asphyxiated, of which, however, we will make mention later.

Sugar in the urine means not only retrograde changes of the tissues in general, but a disordered condition of the nervous mechanism, either of which forbodes evil consequences, especially if chloroform should be chosen as the anæsthetic, for we have conclusive evidence that chloroform will not only produce sugar in the urine of a patient to all appearances free from it, but will increase the amount in persons already afflicted with it. To produce diabetes mellitus is very likely to lead to unpleasant symptoms, which we should be able to recognize, and to increase it may mean diabetic coma and death.

There is a condition which we scarcely regard as pathological, which perhaps

causes more deaths during the administration of anæsthetics than any other, and to which generally too little attention is given. I refer to excessive fat, which acts not only as an obstruction to the action of the lungs and heart, but to the portal circulation. If this fat is not reduced by preparatory treatment, special care should be taken not to force the anæsthesia.

Chronic alcoholism also is a condition calling for special care in the administration of anæsthetics. Diseases of the heart, as is well known, contraindicate the use of chloroform, and a weak and dilated heart calls also for special care in the administration of ether, for while ether generally stimulates the heart, there is some danger in the increased blood pressure, and we should remember that there is some danger, too, from the same cause in an atheromatous condition of the blood vessels. While ether is to some extent contraindicated in severer forms of lung disease, clinical experience teaches us that ordinarily it is quite as safe as chloroform.

By our investigations we have learned that neither ether or chloroform are ideal anæsthetics; that is, neither paralyze the sensory nerve trunks without affecting other functions of the body.

Having examined our patient, chosen the anæsthetic and prepared for anæsthesia, how shall we administer the anæsthetic to reduce these possible dangers, due to a dyscrasia, to a minimum, avoid producing acute disease and accidents, and how shall we treat these accidents? Here is the opportunity for a great diversity of opinion. All agree that chloroform should be given in such a manner as to prevent the patient receiving it in too concentrated a form, and with a free admixture of air. Various inhalers have been made with the object in view of keeping the proportion of chloroform and air constantly the same, and many of them do admirable work; yet we keep right along giving chloroform by means of a folded napkin and cone, at one instant pouring on a few drops, at the next, a drachm or perhaps an ounce, and each time putting the cone or napkin at the same

distance from the patient's face, more to meet the approval of the operator or some bystander than to meet the indications. That most deaths from anæsthetics occur during the early stage of administration is perhaps due as much to our haste as to the idiosyncrasies and struggling of the patient. The model inhaler for chloroform is the Junker, with a record of twenty years' service in the Samaritan Hospital, London, without a death. The Esmarch set is a convenient and safe combination.

While the exigencies of private practice make it pardonable for us to use at times questionable apparatus for the administration of chloroform, in hospitals none but the safest should be used.

It is conceded that in the administration of ether more latitude is allowable, yet we frequently see procedures that are at least questionable.

The idea that ether requires no admixture with air is erroneous, for it does not contain sufficient oxygen to support life, and when we attempt to anæsthetize by excluding the air, the result is asphyxia with its attendant evils. Should we totally exclude air at the commencement of etherization, we may confidently expect during the later use of the anæsthetic, coughing, accumulation of mucus in the throat, dyspnoea, cyanosis, and if the anæsthesia is prolonged, possibly a failing heart. With ether, then, as with chloroform, commence with a dilute vapor. Let your patient sniff the bottle from afar. Inspire him with confidence by a calm demeanor and assuring words. Do not try to break the record as to time for the reasons before mentioned, and on account of the danger of pneumonia or oedema following. Many with enviable reputations in the profession advise rapid anæsthesia with ether, putting the limit at two or three minutes, but they are not sustained in so doing by any physiological reasoning, nor does the clinical experience of the majority of the profession warrant a continuance of this habit. An average of from five to eight minutes for bottle ether or chloroform is confirmed by the experience of most of our competent observers.

For economy and preventing the escape of vapor into the room, an inhaler in which a closed bag is a feature, such as Hutchinson's or Squibb's, is desirable, but the Allis is very efficient. The ordinary cone is not as objectionable for ether as for chloroform, but permits a waste of the ether.

The accidents that occur during anæsthesia have been treated in a great variety of ways. In fact, the great variety of means resorted to in a given case has made it difficult to determine to what remedy the credit was due.

Artificial respiration seems paramount to all others as proven both clinically and by experiments on animals. Among drugs, digitalis, strychnia, nitro-glycerine and ammonia head the list. While alcohol, ether, nitrate of amyl, caffeine and atropia have their advocates, experiments on animals prove them of little use, if not positively harmful. The lowering of the head has been proven beneficial, both clinically and experimentally, but whether from its effect on the heart or the respiratory centers is yet a mooted question. The best effect is produced by alternating the elevated and horizontal positions.

NEW REMEDIES.

Special Railroad Rates for the First Pan-American Medical Congress to be held at Washington, D. C., September 5th to 8th Inclusive.

The Chesapeake & Ohio Ry. from Cincinnati or Louisville to Washington, D. C., is the quickest, most picturesque, interesting and comfortable line between those cities. Their trains are vestibuled throughout, lighted by electricity, and carry the latest pattern of through first-class coaches, dining cars and sleepers.

The scenery along the upper Ohio and Kanawha rivers, through the gorges and canons of the New river, among the peaks and valleys of the Blue Ridge and Alleghany

ranges, and over the fertile plains and historic battlefields of Virginia, constitutes a kaleidoscopic panorama that for variety, beauty, grandeur and historic interest is unequalled in this country.

The rate of fare will be the same by all of the lines, and while they have not yet been agreed upon, they will positively not be more than one and one-third fare for the round trip. The one way rates are as follows: from St. Louis, \$19.25; Chicago, \$17.50; Cincinnati, \$14; Indianapolis, \$16; Louisville, \$16.

Tickets will be sold at those places September 1st to 4th inclusive, good to return leaving Washington as late as September 12. Ask for your tickets "via the Chesapeake & Ohio Ry."

If you will advise me what day you will leave any of the places named and whether in the morning or evening, and how many berths you will want, I will reserve them through to Washington for you.

Write for a copy of "Virginia in Black and White."

E. B. POPE,

Western Passenger Agt., C. & O. Ry.,
St. Louis, Mo.

Salipyrin.

According to the *Wiener Med. Blätter*, No. 22, almost invariable success follows the administration of salipyrin. In cases of severe hemicrania complete relief is obtained in ten or fifteen minutes. Similar results are observed in post-alcoholic headache, when antipyrin fails. Chronic rheumatism is speedily relieved. As an antineuralgic its action is most pronounced, relieving the lancinating pain of chronic myelitis and other painful affections, such as lumbago, headaches and neuralgias.

DR. J. L. MINOR says: "I have used your Elixir Three Chlorides in a number of patents requiring tonic and alterative treatment, and have come to place much reliance upon it in such cases. The composition of the Elixir is a very happy and effective one."

Guaiacoline.

This is not a patent preparation, but a compound containing those agents which are used and prescribed every day by physicians all over the country. The formula is printed on every label so that you may know just what you are using. It is a difficult matter to make a perfect emulsion of cod-liver oil. It is still a more difficult thing to combine with it guaiacol or creosote and make it palatable. Guaiacoline is not unpleasant to take and does not disagree with a sensitive stomach. It is alkaline, therefore easily digested. It is antiseptic, therefore prevents fermentation. The Kaw Pharmacal Co., Topeka, Kansas, will gladly send samples to physicians writing them.

Prophylaxis of Cholera Asiatica.

I have been prescribing preventive medicine for diphtheria for many years and have never had a second case develop. When diphtheria appears I have made it a constant practice to put all those exposed to infection upon Listerine, taken in drachm doses at each meal; and during the three years of la grippe I ordered my family and all my friends families to use it after each meal, as long as there were any cases in our city. I did not once fail in preventing both diphtheria and la grippe when Listerine was taken faithfully. In several instances persons being called from home neglected the Listerine preventive treatment and returned in a week or two with la grippe fully developed. I believe that the only safe quarantine against cholera is to quarantine the alimentary tract, and for this purpose I shall trust to Listerine. It will prevent diphtheria and la grippe, and I feel sure it will prove equally efficient in the preventive treatment of cholera.

J. H. STRINGFELLOW, M.D.,

Prof. Hygiene, Northwestern Medical College, St. Joseph, Mo.

Salts of Lithia in Uric Acid Diathesis.

As a therapeutic agent in gout, the salts of lithia far exceed those of potassium on account of their greater saturating power as an alkali for uric acid. Of the various salts of lithia, the citrate is the most soluble and most convenient for administration. It may be administered in doses of from five grains to one dram in water. The most convenient form for administration is the effervescing tablets, prepared by the New York and London Pharmacal Co. Dissolved in water, they make a very palatable drink, equal to any of the Natural Lithia Waters, and of much greater strength.

Official Delegates to the Pan-American Medical Congress.

Practically all of the governments have appointed official delegates to the Congress in response to the investigation by the president of the United States. The United States Government will be represented by six delegates. The larger cities of all the Latin-American countries have appointed delegates to participate in the proceedings of the sections on hygiene, climatology and dermatology, and on marine hygiene and quarantine, and similar appointments will be made by the cities of the United States. Seventy-six similar delegates have so far been appointed by the governors of states in the United States. A large number of delegates have been chosen by the medical colleges of the United States and other American countries to attend the section on medical pedagogics under the presidency of Prof. J. Collins Warren, of Boston.

DR. ERNST HART, editor of the *British Medical Journal*, and Prof. Czerny, of Heidelberg, will be among the distinguished guests of the Pan-American Medical Congress. The latter is booked for the Pan-American excursion at Rome by the "Werra."

Rates to Pan-American Medical Congress.

Physicians attending the Pan-American Medical Congress, which meets in Washington, D. C., September 3 to 5, should remember that by taking the Atchison, Topeka & Santa Fe R. R. to Chicago they can have the benefit of the World's Fair rate and can secure the regular one and one-third rate from Chicago to Washington.

PARKE, DAVIS & Co., of Detroit, have recently issued a pamphlet on "Absurd Medicaments," showing the ridiculous tendency toward fanciful nomenclature in new pharmaceutical preparations. The frequent use of the ending "ine" given to some of these preparations has given rise to the criticism. The article is well timed and will doubtless result in much good.

We are hardly prepared to pass judgment on the controversy with Dr. Hammond, but judging from the facts presented would say the position assumed by Dr. Hammond, for a physician and an author, is certainly a very peculiar one.

THE *Therapeutic Gazette* for July will contain the following articles:

The Employment of Irrigation of the Bowel in the Treatment of the Summer Diarrhoea of Infants. R. E. Muller, M.D., of Philadelphia.

The Value of Creasote in Tuberculosis. Prof. James T. Whittaker, of Cincinnati.

The Treatment of Croupous Pneumonia. Prof. J. A. Larabee, of Louisville.

Operative Treatment of Ear Disease. S. MacCuen Smith, M.D., of Philadelphia.

The Treatment of Lachrymal Obstruction. Charles Hermon Thomas, M.D., of Philadelphia.

The Value of Rest as a Therapeutic Measure. J. Madison Taylor, M.D., of Philadelphia.

Pan-American Medical Congress.

Committee of Arrangements, Washington, D. C.—Samuel S. Adams, M.D., chairman; J. R. Wellington, M.D., secretary; G. L. Magruder, M.D., treasurer.

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Entertainment.—Dr. G. Wythe Cook, chairman; Drs. G. N. Acker and Thos. E. McArdle.

Registration.—Dr. Carl H. A. Kleinschmidt, chairman; Drs. John S. McLain and Johnson Eliot.

Railroads.—Dr. H. L. E. Johnson, chairman; Drs. E. L. Tompkins and J. Foster Scott.

Printing.—Dr. Llewellyn Eliot, chairman; Drs. Thomas N. Vincent and F. B. Bishop.

Halls and exhibits.—Dr. H. H. Barker, chairman; Drs. J. T. Winter and C. M. Buchanan.

Ways and means.—Dr. C. W. Richardson, chairman; Drs. John Van Rensselaer, Wm. Dillenback, Henry B. Deale and Wm. Compton.

Information.—Dr. W. Sinclair Bowen, chairman; Drs. E. Oliver Belt and F. S. Nash.

Hotels.—Dr. Geo. S. Ober, chairman; Drs. Wm. E. Handy and D. O. Leech.

Section on Materia Medica and Pharmacology, Pan-American Medical Congress.

A section on materia medica and pharmacology has been organized under the executive presidency of Professor Joseph P. Remington, of Longport, N. J., with Professor F. G. Ryan, 3739 Brown street, Philadelphia, as English-speaking secretary. This section promises to be one of the most important of the entire congress. Delegates have been invited from all the pharmaceutical societies and colleges in all the Americas. Those contemplating attendance are invited to prepare papers on pharmaceutical topics. Titles should be sent at once to Professor Ryan, Secretary.

THE *Therapeutic Gazette* for August will contain the following articles:

On the Treatment of Epilepsy. David Inglis, M.D., of Detroit.

The Address in Medicine Before the Lehigh Valley Medical Association. Prof. H. A. Hare, of Philadelphia.

The Treatment of Club-Foot. Prof. De Forrest Willard, of Philadelphia.

The Treatment of Scabies. J. Abbott Cantrell, M.D., of Philadelphia.

Operative Treatment in Gynecological Cases. Prof. E. E. Montgomery, of Philadelphia.

Treatment of Summer Diarrhoea by Irrigation. R. E. Muller, M.D., of Philadelphia. (Continued paper.)

IN sending in your subscriptions, please send by draft on Chicago or New York or by post office money order, as the banks refuse to handle checks on local banks.

THE catalogue of the Kansas Medical College for 1893-4 is now being mailed. It is much larger than previous ones and of better stock. It was issued by the JOURNAL PUBLISHING COMPANY.